

Comparison.

Date.	θ^o .	$\theta^c - \theta^o$.	ϱ^o .	$\varrho^c - \varrho^o$.
		$\angle$ arc.		
1834.47	$37^{\circ} 6'$	+ 46	.034	"
1835.55	36 48	- 48	.035	
1836.43	34 30	- 3	.002	
1837.43	32 42	+ 1	.001	2.66 —.14
1847.32	14 6	+ 5	.003	2.30 —.01
1850.46	5 52	+ 77	.047	2.29 —.20
1851.54	4 28	- 3	.002	2.26 —.20
1852.27	3 27	- 59	.034	1.89 +.12
1852.72	0 58	+ 13	.007	1.91 +.04
1853.25	359 35	+ 3	.002	1.83 +.08
1853.78	358 30	- 30	.016	1.82 +.05
1854.26	356 10	+ 16	.008	1.71 +.12

“ The signs of the distance-errors would indicate some further slight correction of the elements, but the early distances are not worthy of much confidence.

“ London, 7th June, 1855.”

M. Drach has received a letter from Dr. Donati, of the Florence Observatory, informing him of his having discovered, on the 3d instant, a new comet in the constellation *Telescopium Herschelii*. With the ring micrometer, and a low magnifying power, and through mist and clouds, he obtained the following positions :—

				Comet — Star.			
Florence M.T.				In R.A.	In Decl.		
1855.	h	m	s	m	s	'	"
June 3	10	4	10	— 2	17.18	+ 22	0.0
4	9	55	12	+ 2	37.78	— 9	22.9
5	9	18	36	— 4	2.41	— 20	12.5
Comet's App. R.A.				App. Decl.		No. of Comparisons.	
h	m	s		o	'	"	
.....						2 with (a)	
6	56	56.27		+ 36	22	5.5	1 with (b)
7	10	32.73		+ 36	15	15.1	1 with (c)

Apparent Positions of the Comparison Stars.

	R.A.	Decl.	Catalogue of Stars.
(b)	$6^h 54^m 18.49^s$	+ 36 31 28.4	Lalande 13569
(c)	7 14 35.14	+ 36 35 27.6	— 14298

The star (α) is of 10.11 magnitude. Clouds prevented its being observed after the evening of the 3d. The comet does not exhibit any trace of either tail or nucleus. It appeared somewhat fainter than the nebula in *Hercules*.

[This comet is the same as that mentioned in the *Monthly Notices* for May as having been discovered by M. Klinkerfues at Göttingen on the 4th of June. Dr. Donati's discovery is, consequently, a day earlier than that of the latter.—EDITOR.]

On the Values of the Constants of Nutation and Aberration, and of the Parallax of γ Draconis, as Deduced from the Observations made with the Twenty-five Foot Zenith Tube, at the Royal Observatory, Greenwich. By the Rev. R. Main.

The observations discussed in this Paper extend from June 1837 to May 1848, during which time they were made with tolerable continuity, the only interruptions being such as were inevitable either on account of periods of bad weather, or from the difficulty of seeing the star in the day-time, or from occasional readjustments or alterations in the instrument.

The author commences with a preliminary recapitulation of the principal results obtained by preceding astronomers for the values of aberration and nutation. He next gives a description of the instrument employed in the observations which form the groundwork of his own investigation, referring for further details to the Introduction of the *Greenwich Observations* for 1837 and subsequent volumes.

The zenith tube was erected by Troughton during the Directorship of Pond for the purpose of observing several stars in addition to *Polaris*, which pass the meridian of Greenwich very near the zenith, but no regular series of observations suitable for any delicate inquiry was made with it till the accession of Mr. Airy. One of the first points taken into consideration by the latter astronomer was the examination and improvement of this instrument, with the view of rendering it efficient for making an extensive series of observations of γ *Draconis*.

It may be mentioned, for the sake of showing the fineness of the micrometer-screw, that the value of a revolution was found from the mean of several determinations made in the winter of 1836 and agreeing very closely with each other to be $6''.714$; a similar determination in the spring of 1846 gave $6''.724$ for the value of a revolution.

After describing the various precautions which were taken to prevent any disturbing influence from vitiating the observations, the author next proceeds to explain the processes pursued in the calculations.